

Appl. No: Unassigned

Applicant: Haagmans, et. al.

Preliminary Amendment dated October 11, 2005

Preliminary Amendment to International Appl. No: PCT/NL2004/000229

Page 3 of 8

AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions, and listing, of claims in the application:

Claims 1-42 (Cancelled)

43. (New) An isolated essentially mammalian positive-sense single stranded RNA virus (SARS) comprising one or more of the sequences of figure 2.

44. (New) An isolated positive-sense single stranded RNA virus (SARS) belonging to the Coronaviruses and identifiable as phylogenetically corresponding thereto by determining a nucleic acid sequence of said virus and testing it in phylogenetic tree analyses wherein maximum likelihood trees are generated using 100 bootstraps and 3 jumbles and finding it to be more closely phylogenetically corresponding to a virus isolate having the sequences as depicted in figure 2 than it is corresponding to a virus isolate of BoCo (bovine coronavirus), MHV (murine hepatitis virus), AIBV (avian infectious bronchitis virus), PEDV (porcine epidemic diarrhea virus), TGEV (transmissible gastroenteritis virus) or 229E (human coronavirus 229E).

45. (New) A virus according to claims 43 or 44 wherein said nucleic acid sequence comprises an open reading frame (ORF) encoding a viral protein of said virus, preferably selected from the group of ORFs encoding the viral replicase, nuclear capsid protein and the spike protein.

46. (New) A virus according to claims 43-45 isolatable from a human with atypical pneumonia.

47. (New) An isolated or recombinant nucleic acid or SARS virus-specific functional fragment thereof obtainable from a virus according to anyone of claims 43 to 46.

Appl. No: Unassigned

Applicant: Haagmans, et. al.

Preliminary Amendment dated October 11, 2005

Preliminary Amendment to International Appl. No: PCT/NL2004/000229

Page 4 of 8

48. (New) A vector comprising a nucleic acid according to claim 47.

49. (New) A host cell comprising a nucleic acid according to claim 47 or a vector according to claim 48.

50. (New) An isolated or recombinant proteinaceous molecule or SARS virus-specific functional fragment thereof encoded by a nucleic acid according to claim 47.

51. (New) An antigen comprising a proteinaceous molecule or SARS virus-specific functional fragment thereof according to claim 50.

52. (New) An antibody specifically directed against an antigen according to claim 51.

53. (New) A method for identifying a viral isolate as a SARS virus comprising reacting said viral isolate or a component thereof with a nucleic acid according to claim 47 and/or with an antibody according to claim 52.

54. (New) A method for virologically diagnosing a SARS infection of a mammal comprising determining in a sample of said mammal the presence of a viral isolate or component thereof by reacting said sample with a nucleic acid according to claim 47 or an antibody according to claim 52 or determining in a sample of said mammal the presence of an antibody specifically directed against a SARS virus or component thereof by reacting said sample with a proteinaceous molecule or fragment thereof according to claim 50 or an antigen according to claim 51.

55. (New) A diagnostic kit for diagnosing a SARS infection comprising a virus according to anyone of claims 43 to 46, a nucleic acid according to claim 47, a proteinaceous molecule or fragment thereof according to claim 50, an antigen according to claim 51 and/or an antibody according to claim 52.

56. (New) Use of a virus according to any one claims 43 to 46, a nucleic acid according to claim 47, a vector according to claim 48, a host cell according to claim 49, a proteinaceous molecule or fragment thereof according to claim 50, an antigen according to claim 51, or an antibody according to claim 52 for the production of a pharmaceutical composition, preferably for the production of a pharmaceutical composition for the treatment or prevention of a SARS virus infection or for the production of a pharmaceutical composition for the treatment or prevention of atypical pneumonia.

57. (New) A pharmaceutical composition comprising a virus according to any one of claims 43 to 46, a nucleic acid according to claim 47, a vector according to claim 48, a host cell according to claim 49, a proteinaceous molecule or fragment thereof according to claim 50, an antigen according to claim 51, or an antibody according to claim 52.

58. (New) A method for the treatment or prevention of a SARS virus infection or for the treatment or prevention of atypical pneumonia comprising providing an individual with a pharmaceutical composition according to claim 57.

59. (New) A viral replicase encoded by an RNA sequence comprising the sequences EMC-1, EMC-2, EMC-3, EMC-4, EMC-5, EMC-6, EMC-7, EMC-13 and/or EMC-14, or homologues thereof as depicted in figure 2.

60. (New) A viral spike protein comprising the amino acid depicted as translation 2 with sequence EMC-7 and translation 1 of RDG 1 as depicted in figure 2, or a homologue thereof.

61. (New) A viral nuclear capsid protein encoded by an RNA sequence comprising the sequence EMC-8 as depicted in figure 2 or a homologue thereof.

62. (New) A viral protein encoded by an RNA sequence comprising the sequence EMC-9, EMC-11 and/or EMC-12 as depicted in figure 2.

63. (New) A nucleic acid sequence which comprises one or more of the sequences EMC-1 to EMC-13 as depicted in figure 13 or a nucleic acid sequence which can hybridise with any of these sequences under stringent conditions.

64. (New) Use of interferon for the preparation of a medicament for the treatment or prevention of a coronavirus associated disease, preferably wherein said interferon is interferon alpha, more preferably wherein said interferon alpha is interferon-alpha 2a or interferon-alpha 2b, and preferably wherein said coronavirus associated disease is a disease of animals, preferably vertebrates, more preferably birds or mammals, especially humans, ape or rodent, more preferably wherein said disease is a respiratory disease and/or gastroenteritis, most preferably wherein said animal is human.

65. (New) Use according to claim 64, wherein said interferon is pegylated.

66. (New) Use according to any of claims 64-65 wherein said coronavirus associated disease is a disease caused by HCoV-NL, the feline infectious peritonitis virus (FIPV) or hemagglutinating encephalomyelitis virus (HEV) of swine or avian infectious bronchitis virus (IBV) or mouse hepatitis virus (MHV), preferably wherein said coronavirus associated disease is a disease caused by a SARS coronavirus (SARS-CoV), more preferably wherein said SARS virus is a positive-sense single stranded RNA virus (SARS coronavirus) comprising one or more of the sequences of figure 2, most preferably wherein said SARS virus is a positive-sense single stranded RNA virus (SARS coronavirus) corresponding to GenBank accession no. AY274119 or AY278741 or AY338175 or AY338174 or AY322199 or AY 322198 or AY322197 or AH013000 or AY322208 or AY322207 or AY 322206 or AY322205 or AH012999.

67. (New) A method for the treatment or prevention of a coronavirus associated disease in an animal, preferably a vertebrate, more preferably a bird or mammal, especially human, ape or rodent, infected with a coronavirus, said method comprising administrating interferon, to said animal, preferably a vertebrate, more preferably a bird or mammal, especially human, ape or rodent, along with a

Appl. No: Unassigned

Applicant: Haagmans, et. al.

Preliminary Amendment dated October 11, 2005

Preliminary Amendment to International Appl. No: PCT/NL2004/000229

Page 7 of 8

pharmaceutically acceptable carrier, preferably wherein said interferon is administered together with a vaccine, antibody and/or antiviral agent, more preferably wherein said vaccine, antibody and/or anti-viral agent is selected from the group consisting of whole inactivated virus vaccines, attenuated vaccines, sub-unit vaccines, recombinant vaccines, antibody for passive immunization, nucleoside analogs such as ribavirin, RNA-dependent RNA polymerase inhibitors, protease inhibitors.